

Patent Claims

1. An electrical connecting apparatus having the
5 following features:
 - a) a current or data transmitter device which can
be connected to at least one current-
transmitting or pulse-transmitting source, is
arranged in a transmitter housing and has
10 contact elements,
 - b) a current-receiving or data-receiving device
which can be electrically connected to a load
or consumer, is arranged in a receiver housing
and has contact elements,
 - 15 c) at least the contact elements of one of the two
devices are arranged in an at least partially
elastic wall of the associated housing,
 - d) current, pulses or data can be transferred
between the contact elements, which are in the
20 form of flat contacts with touching surfaces,
of the current or data transmitter device and
the current-receiving or data-receiving device
by connecting the current or data transmitter
device to the current-receiving or data-
25 receiving device,
characterized in that
 - e) a multiplicity of contact elements (3) of at
least one of the two devices (1, 5) are held
next to one another in a holding body (11),
 - 30 f) the contact elements (3) which are held in the
holding body (11) are elastically mounted, and
 - g) the contact elements (3) which are held in the
holding body (11) rest on a pressing link (16)
on the side facing away from the contact
35 elements (9) of the other device (5).
2. The electrical connecting apparatus as claimed in
claim 1,

characterized in that
the pressing link (16) is elastic.

- 5 3. The electrical connecting apparatus as claimed in
 claim 1,
 characterized in that
 an elastic sealing element (13) is arranged, at
 least in partial regions, between the contact
 elements (3) and the holding body (11).
- 10 4. The electrical connecting apparatus as claimed in
 claim 3,
 characterized in that
 the sealing element (13) is introduced into the
15 holding body (11) by means of molding.
5. The electrical connecting apparatus as claimed in
 claim 3,
 characterized in that
20 the sealing element (13) is introduced into the
 holding body (11) by means of injection-molding.
6. The electrical connecting apparatus as claimed in
 one of claims 1 to 5,
25 characterized in that
 the holding body (11) is in the form of a plastic
 part in which a multiplicity of holding slots (10)
 for the contact elements (3) are made.
- 30 7. The electrical connecting apparatus as claimed in
 claim 6,
 characterized in that
 the contact elements (3) are arranged in the
 holding slots (10) with lateral play.
- 35 8. The electrical connecting apparatus as claimed in
 one of claims 1 to 7,
 characterized in that

the pressing body (16) is provided, on the side facing the contact elements (3), with cutouts, grooves, channels or slots (19) which are made in the pressing body (16) between the contact elements (3) which are arranged at a distance from one another.

14. The electrical connecting apparatus as claimed in one of claims 1 to 13, characterized in that the pressing body (16) is provided with cutouts, grooves, channels or slots (19') on the rear side facing away from the contact elements (3).

15. The electrical connecting apparatus as claimed in one of claims 1 to 14, characterized in that part of the housing (1a), on which the pressing body (16) rests, has been provided with cutouts, grooves, channels or slots (19'').

16. The electrical connecting apparatus as claimed in one of claims 1 to 15, characterized in that the pressing body (16) is in the form of a silicone pressure pad.

17. The electrical connecting apparatus as claimed in one of claims 4 to 16, characterized in that the holding slots (10) are provided with stops (12) on the side facing the contact elements (9) of the other device (5).